

# Studies on Heterosis for Yield in CMS Based Pigeonpea [*Cajanus cajan* (L.) Millsp.] Hybrids.

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## ABSTRACT

A study on hybrid pigeonpea [*Cajanus cajan* (L.) Millsp.] was carried out with 33 genotypes involving seven CMS lines (A), nine testers (R-lines), 16 hybrids and one check (Maruthi) which were evaluated in a randomized block design with two replications during *khari*f, 2017-2018 to elicit information on extent of heterosis in terms of yield and yield attributes. The results indicated that manifestation of relative heterosis for seed yield per plant was significantly superior for five hybrids ranging from -23.51 to 70.31%, two hybrids over betterparent ranging from -39.87 to 36.88% and four hybrids over standard check ranging from -51.03 to 28.99%. Besides seed yield, substantial heterosis was also observed in negative as well as positive direction for remaining traits. The best hybrids based on seed yield and yield components were ICPH 3481, ICPH 3496, ICPH 2438 and ICPH 2363. These hybrids were found to exhibit more than 25% standard heterosis for seed yield and its respective traits.

**Keywords:** *Pigeonpea, hybrid, mid-parent, betterparent, heterosis, relative heterosis, heterobeltiosis, standard heterosis, yield and yield components.*